

IN THE SPECIFICATION:

Please replace paragraphs [0013], [0015], [0016] and [0017] with the enclosed revised paragraphs [0013], [0015], [0016] and [0017]:

[0013] Referring more particularly to FIGS. 1–2, wherein like numbers refer to similar parts, a pair of buffing machines 20 are shown in FIG. 1, positioned within an archway 22 formed by a frame 24 of a printing press 26. A paper web 28 passes between opposed buffing rolls 30 which are mounted within vacuum hoods 32 which are connected to vacuum hoses 34. The buffing rolls 30 are rotated while air is drawn through the hoods 32. The rolls are rotated towards each other (one in the clockwise direction and one in the counter clockwise direction) in operation. As shown in FIG. 2, the buffing rolls 30 have a soft surface 36 composed of a profusion of radially extending wool fibers 37 which present a hairy surface. The fibers 37 and the air currents create or interact with the boundary layer of air moving with the paper web 28, causing loose paper fibers and dust containing various components such as clay, starch or fiber particles to becoming entrained in the boundary layer attached to the buffing roll surface 36. The trapped particles are subsequently removed from the buffing roll 30 by a vacuum supplied by the hoses 34 to the vacuum hoods 32.

[0015] The aluminum plugs 46 are spaced inwardly of the cylinder ends 52, and which are counterbored such that the radiused cylindrical edges of cylinder ends 52 which project outwardly from the plugs have a diameter of 3/16 inches. A wool jacket 54, about one-quarter inch in thickness, is placed around the cylinder 38, and the ends 56 of the wool jacket 54 are wrapped about the cylindrical edges of cylinder ends 52 which are radiused to prevent cutting of the wool jacket 54. The wrapped ends 56 of the jacket 54 are clamped to the cylinder 38 by metal caps 58. Each cap 58 has a central bore 55 which slides along the thicker diameter portion 60 of the stub shafts 44. Four equally spaced screws 62 extend between through the end caps 58 and into threaded holes 59 in the aluminum plugs 46. Tightening the screws 62 draws the caps 58 axially inwardly toward the plugs 46.

[0016] The end caps 58 have radially protruding circumferential flanges 64 which define circumferential radiused features 66 opening towards the ends 52 of the cylinder 38. The

ends 56 of the wool jacket 54 are clamped between the flanges 64 and the cylindrical edges 52, to be held in place within the circumferential radiused conforming features 66. The wool sleeve or jacket 54 is approximately one-quarter inch in radial thickness and initially fits easily over the surface 68 of the aluminum cylinder 38. The wool jacket 54 is heated with steam or hot water and dried. This process causes the wool jacket 54 to shrink and grip the aluminum cylinder 38 tightly and to become affixed to the surface without bonding thereto. Following the shrinking process the ends 56 of the wool jacket 54 are bent over the cylindrical edges 52 and clamped in place by the end caps 58. The surface 68 of the aluminum cylinder 38 may be shot peened to produce a rough surface to which the wool jacket 54 attachment is enhanced when the wool fibers in the jacket shrink. The jacket may be a tubular woven cloth material, for example woven essentially of wool. A suitable wool jacket may be obtained from Edward H. Best & Co., Hanover, Massachusetts, particularly All Wool Endless Jacket products.

[0017] The wool jacket 54 has an outer surface 3657 from which multiple radially extending fibers 37 project. The number of radially extending fibers 37 may be increased by teasing or brushing the surface 3657 of the roll 30 with, for example, a wire brush. In use, the ends of the fibers 37 should be tangent to the web 28. Correct positioning of the fibers 37 with respect to the web 28 is accomplished by positioning the rolls so that they contact the paper web 28 and allowing the paper web over a period of four to twenty-four hours to seat in or wear away the fibers which actually frictionally engage the surface of the paper web 28, after which the buffing rolls 30 can be considered to be in noncontact with the paper web, because no further wearing against the paper occurs. The buffing roll surface 3657 is noncontact with the moving paper web. Surface 3657 moves in a direction opposite to the direction of the paper web 28. In practice a gap between the roll surface 3657 and the paper web 28 of as much as a 1/32th or even 1/16th of an inch, will not prevent the cleaning action. ~~A contact roll on the other hand moves in the same direction with the same or similar speed as the web the contact roll is in contact with, or the contact roll produces significant frictional engagement with the web because of the contact combined with the relative motion between the contact roll and the web.~~